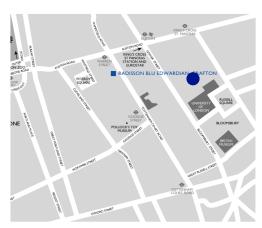


Health & Safety

No Fire Alarm testing is planned for today

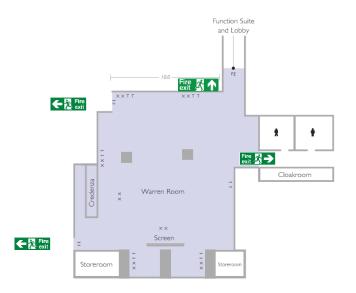
In case of an alarm, -please follow the fire escape signs to the evacuation point

This is at the rear of the Hotel by Fitzroy Square



Warren Room Fire Exits

There are 4 fire exits in the Warren Room, as shown be the map below



National Grid and Xoserve Attendees

- Josh Bates
- Craig Shipley
- Martin Cahill
- David Hardman
- Lloyd Mitchell
- Mark Baker

- Abby Hayles
- Karen Healy
- Daisy Benson
- Tom Wilcock
- Ffion Davies-Cale



- Matthew Smith
- · Victoria Mustard

Feedback & Questions

For any questions during the forum you can:

- Ask during the presentations
- Speak to an NG representative during the break
- Utilise the Query Surgery time at the end of the Forum



Actions & Feedback since Last Forum

Item	Action	Detail
Brexit Customs Query (Moffat)	Confirm requirements for customs declarations at Moffat	NG will not be doing any declaration on behalf of Shippers, and it will be a shipper's responsibility to do the declaration.
Commercial Tools	Provide Link to Commercial Tools Game online	Can be found on the Community Website (October Forum Documents)
2020 Forums	Confirm Arrangements for next year	(See next slide)

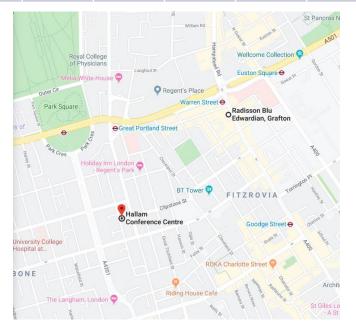
Calendar year 2020 Ops forums

Proposed months for 2020 ops forums

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lon	Lon	Lon	X	War	Lon	X	X	Lon	Lon	War	Х

Provisional new location

The Oxford Suite,
Hallam Conference Centre (Cavendish Venues)
44 Hallam Street
West End
London
W1W 6JJ



Agenda for Today

01	Introduction and previous actions	09:30
02	Operational Overview	09:40
03	Trial of hydrogen within the National Transmission System (NG & DNVGL)	09:55
04	Emergency Exercise	10:15
05	GFOP Latest Publication	11:10
06	Constraint Management on the NTS	11:30
07	RIIO T2 Webinar Follow up	12:00
08	Transmission Workgroup update	12:10
09	MIPI Project Update	12:15
10	Other updates	12:25
	·	

Breaks:

Morning Break 10:45 – 11:10

Lunch Break & Query Surgery 12:25

Gas System Operator

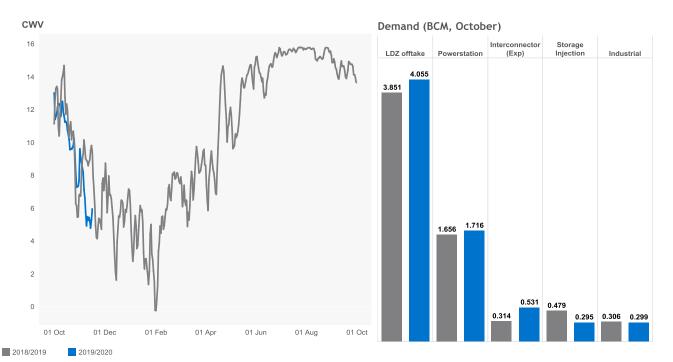
02

Operational Overview October 2019

Martin Cahill

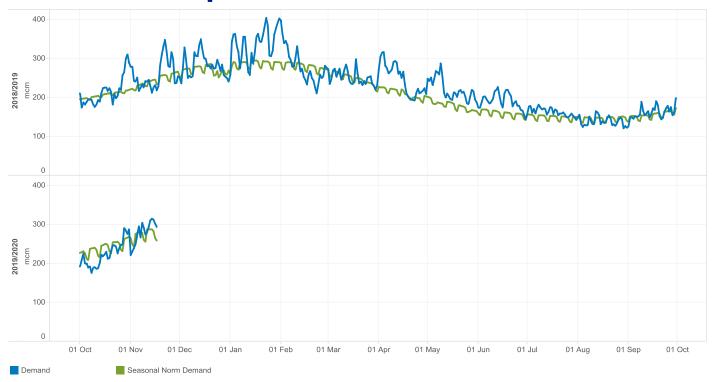


Demand – CWV & Components



- Increase in domestic demand, in line with Winter Outlook prediction
- European Interconnector flows in October were mostly through BBL (Reverse Flow)
- Expecting to see higher Interconnector exports across winter
- Continue to see regular use of CCGTs

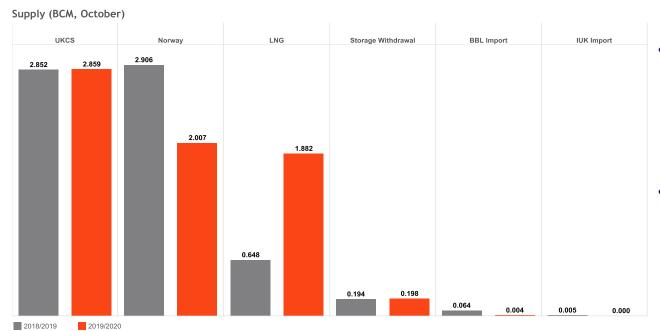
Demand – Comparison to seasonal norm



Increase in Seasonal Normal Demand for 19/20

10

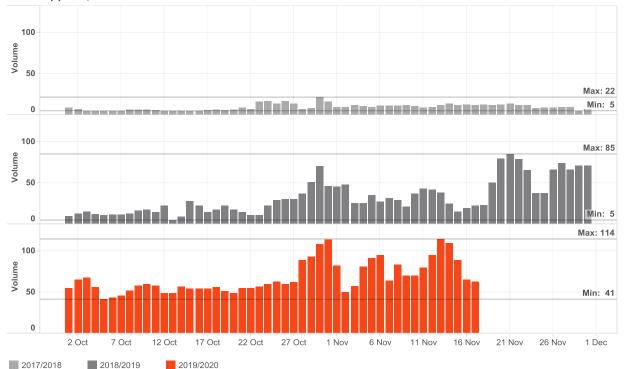
Supply - Components



- Lower Norway supply so far this winter, whilst Interconnector imports over the shoulder months has remained minimal
- NBP For December has moved up, but high LNG sendout means need supply from other sources may remain low initially

LNG Breakdown





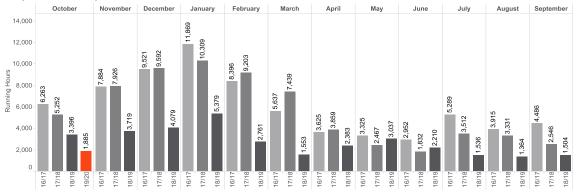
- LNG Volumes have continued to increase this winter
- 14th November Grain LNG exported the highest ever daily amount for a European Terminal – 698 GWh
- Equivalent to around a quarter of the UK demand

Compression



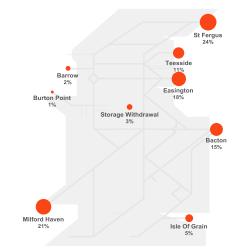






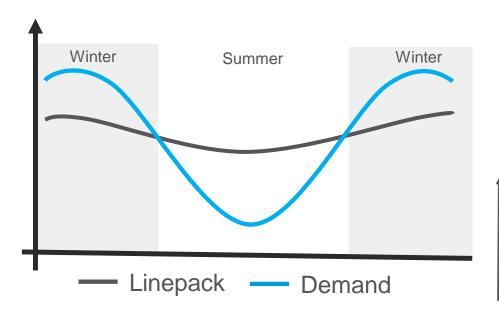
- Balanced Locational supply and demand has meant a reduction in the amount of compressor running hours – reducing cost for the industry
- Higher SW and SE supply
- Expected to continue this winter

2019/2020 Percentage of total supply (October)



Winter Linepack

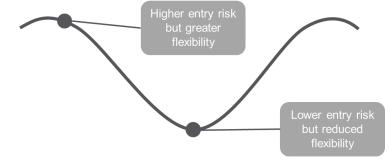
Lower in the summer, higher in the winter



With winter comes:

- Higher demands
- Changing diurnal demand profiles
- Increased pressure drops
- Larger daily linepack swings

Increasing Linepack

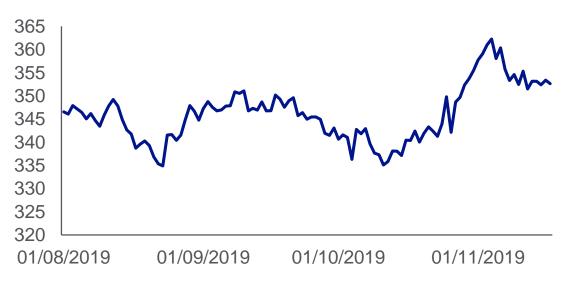


National Grid

14

Linepack

Opening Linepack by day



-OLP

- Market Tendency recently has been underdelivery, which has been a challenge
- Over October we have built up a higher stock as we head into the colder months
- Between 12th October and 4th November built up 26.4mcm of stock
- During this time there were 14 days where NG bought, and 2 days where NG sold

Residual Balancing Incentive

Scheme	T1 Cap and Collar	T2 Cap and Collar – current position	RIIO2 current position
Residual	+£2.0m	+£1.6m	Retain scheme. Make incentive tougher to achieve against by reducing the performance gradient, recognising a changing and more challenging energy landscape. Propose amending the linepack component of scheme to drive the right behaviour during seasonal transitions between winter and summer and vice versa.
balancing	-£3.5m	-£2.8m	

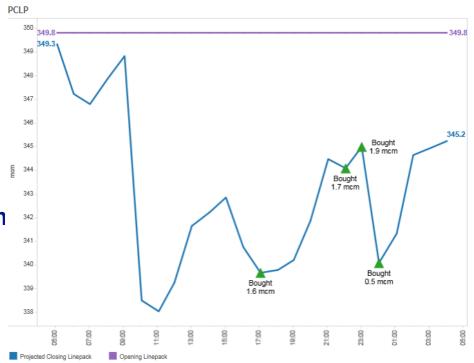
- October was a difficult month on Residual Balancing incentive, with buys required to increase stock as we move into winter, with initial position generally an under-delivery
- At times when there is a lower SAP, the price performance measure is harder to perform against
- Proposal for RIIO T2 is to widen the linepack range (currently 2.8mcm) to drive the right behaviour in the shoulder months

25th October

Opened Balanced, but then has a large reduction in Beach supplies

Bought 1.6mcm at 6pm which led to some increases, but remained light

Scheduled ICE Maintenance between 10.30 and 11.30 meant unable to trade

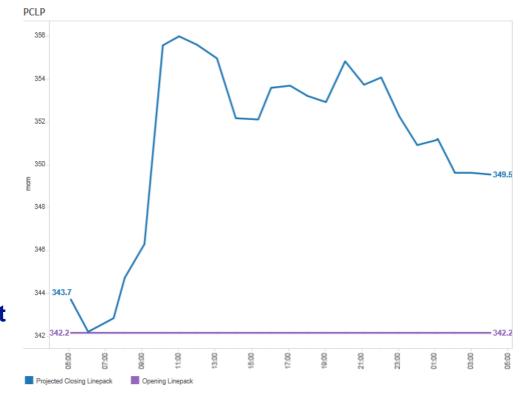


Bought 5.7mcm in total, but a loss of 7.7mcm on the day

26th October

No Trades carried out-

- 25 hour gas day raised uncertainty around notifications and therefore PCLP
- Also needed to gain Linepack with a higher demand forecast the following week



Linepack gain was 6.5mcm

Gas System Operator

03

Hydrogen
Injection Trial
NG & DNV GL



HyNTS nationalgrid

HyNTS is a programme of work that seeks to identify the opportunities and address the challenges that transporting hydrogen within the National Transmission System (NTS) presents. This will unlock the potential of Hydrogen to deliver the UK's 2050 Net Zero targets.



Currently we have three projects live in our HyNTS programme:

Project Cavendish

A review of the potential of the Isle of Grain region to use existing infrastructure to supply hydrogen to London & the South East including generation, storage, transport and CCS.

Hydrogen Flow Loop

Offline test loop to evaluate metallurgy changes on existing NTS steel pipe and new MASIP pipe when exposed to 30% hydrogen, identifying next steps to assess the NTS' suitability to transport hydrogen.

Hydrogen Injection into the NTS

To identify the requirements to enable a physical trial of Hydrogen injection into the NTS, identifying the gaps in the safety case and indicating the most suitable NTS location for a live small-scale trial.

Two projects are under development:

Hydrogen Deblending

To assess a variety of hydrogen recovery technologies and develop concept designs for selected options including a techno-economic review and identify the requirements for a demonstration project.

H21 Network Operations NIC 2019 Bid

Supporting NGN's 2019 NIC Bid alongside the other GDNs to address the impact of 100% hydrogen distribution from LTS offtake to the consumers meter, encompassing the potential impact on current operational and maintenance activities, regulations and procedures.

Two projects are now completed:

Feasibility of Hydrogen in the NTS

A feasibility study with the aim of determining the capability of the NTS to transport hydrogen. Includes a review of relevant assets, pipeline case study and draft scope for offline trials.

Aberdeen Vision

A feasibility study for the generation of hydrogen at St Fergus using the NTS (up to 2%) to supply the city of Aberdeen. Includes generation, injection, separation and transport.

Hydrogen injection into the NTS

Objective

To identify the requirements to enable a physical trial of Hydrogen injection into the NTS, identifying the gaps in the safety case and indicating the most suitable NTS location for a live small-scale trial.

Start

Sept 2019

End

August 2020

Fund

NIA Project

Networks

National Grid Gas Transmission

Project Outline

- → Phase 1 Review the current thinking of hydrogen in both the UK and globally and present a gap analysis on projects which are required to answer the key questions.
- Phase 2 A gap analysis on the Pipeline Safety Case to understand what documents will need to be created, policies to be updated or aspects which can remain unchanged.
- Phase 3 A review of possible locations where a trial could be located, produce a prioritised list with several metrics to help NGGT decide on the best location
- Phase 4 High level design work to help develop the project

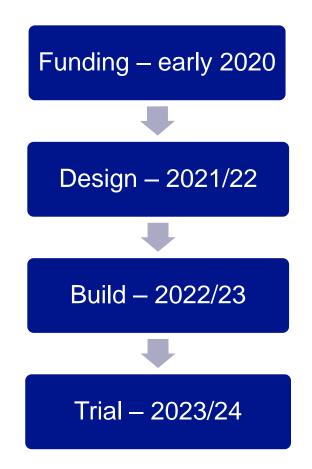
What are we looking for?

- A direct customer of National Grid Gas Transmission who is willing to be involved in a trial of injecting hydrogen up to and including 100% blend into the network
- A low to medium sized offtake on the network with aspirations to be a part of decarbonising the UK gas network
- Potential hydrogen production in the area of the trial
- Potential CCUS if reformation is utilised in the trial

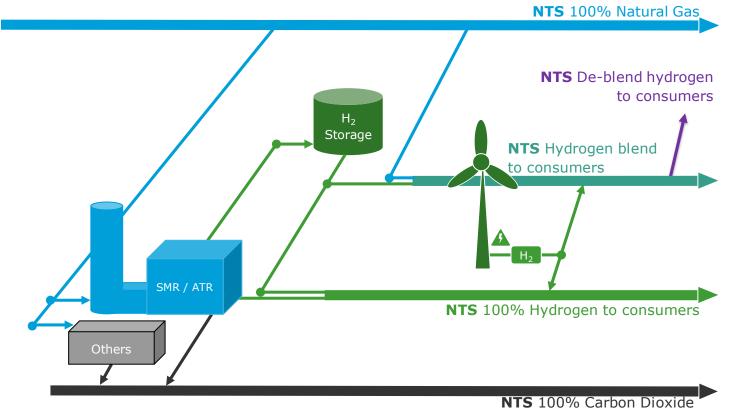
Timeline

- Trial location
- Funding route
- Complexity of the trial
- Requirement for CCUS
- Production requirements





Options for the NTS



Choosing a Trial Location



Gas System
Operator

04

Emergency Exercise

Tom Wilcock



Exercise Arctic – Initial findings

- Gas and Electricity interaction
- Communications
- Data visualisation
- Embedded new responders
- GS(M)R Risk assessment
- Pre-warning for decision points
- Assurance of utilisation of available actions
- Rate reduction

Gas System Operator

05

GFOP Stakeholder Feedback

Karen Healy



GFOP Publication October 2019

- The GFOP Stakeholder feedback summary was published on Tuesday 8th October. You can find it on our website here: https://www.nationalgridgas.com/insight-and-innovation/gas-future-operability-planning-gfop
- Thank you for your feedback & contributions to date, please keep sharing
- Overview of publication.....

Where we are now:

- We haven't been able to quantify operability problems that we need to optioneer solutions
 for i.e within day linepack swing (Our T2 plan is looking to address those we know about)
- We need to undertake further work to explore different ways to analyse data and develop metrics
- Annual analysis cycle underway and will output a set of revised challenges in early 2020
- Keen to seek your views on what you think we should focus future studies on

29

Break out session – What should we focus on next?

- As a starter there are 4 potential studies captured in the latest GFOP
- Please add to this, anything you think we should focus on (5 30 years ahead):
 - Any new changes you foresee in future years that we should consider?
 - Potential issues from your perspective that you think we should focus future studies / analysis on?
- Vote on the highest priority to you using 3 'sticky dots' each

Next steps

- In early 2020 we will share a proposed plan for 2020 GFOPs considering:
 - Your feedback
 - Outputs of the annual planning cycle

Contact us:

We really want to continue to seek your views on:

- Whether this style of publication works
- Any operability issues you foresee
- Whether you have any suggestions/ideas for trying to quantify future 'operability problems' in different ways



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Adeolu Adesanya
Lead Economics Analyst
Adeolu.Adesanya@nationalgrid.com

Gas System Operator

Appendix

GFOP topic: Further study to determine the	GFOP topic: Insight pieces into increasing
impact of increasing linepack swing on our network.	low-carbon gas in the network, considering
Explore different options for defining / gathering data &	decarbonisation targets.
metrics	
GFOP topic: Explore impacts of gas-fired	GFOP topic:Undertake study to further explore the
GFOP topic: Explore impacts of gas-fired power station re-notification frequency and magnitude	GFOP topic :Undertake study to further explore the flexibility requirements for DNs.
power station re-notification frequency and magnitude	
power station re-notification frequency and magnitude	
power station re-notification frequency and magnitude	
power station re-notification frequency and magnitude	
power station re-notification frequency and magnitude	

Raised by:	Raised by:
GFOP topic:	GFOP topic:
Raised by:	Raised by:
GFOP topic:	GFOP topic:

Gas System Operator

06

Constraint
Management on
the NTS

Mark Baker & Abby Hayles



Constraint Management on the NTS

- 1. Constraint Management Objectives
- 2. What Constitutes a Constraint?
- 3. Monitoring the Network
- 4. Managing the Network
- 5. Managing the Network Commercial Tools

Capacity Scaleback & Restoration

Restrict Daily Capacity

Locational Energy Actions

Capacity Surrender (Capacity Buyback)

Offtake Flow Reductions

Constraint Management Agreements

- 6. Coming soon... QSEC and MSEC
- 7. Contact us

Constraint Management Objectives

Managing Financial Risk & Reward

To manage the constraint with **minimum costs to the community.**

To use market based mechanisms to manage constraint situations whenever possible.

Maintaining Transporter Reputation

Ensuring UNC and Licence compliance

Where actions are taken they are consistent and auditable and any Forecasting / Capability Assessments are repeatable.

Optimising Customer Service

Ensuring Users can offtake gas as per ALL contractual and capacity obligations.

Minimising the impact on Users when taking actions

Driving Continual Improvement in Processes

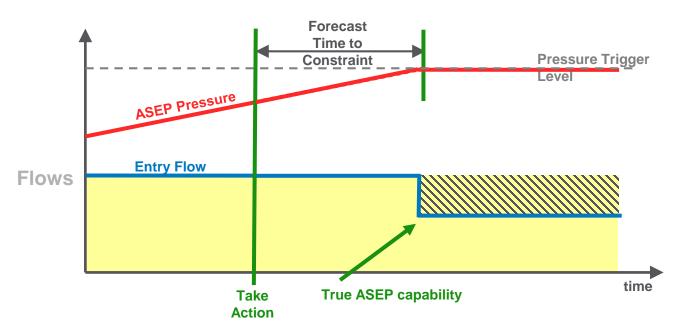
Understanding lessons learned to **improve operating efficiency.**

Feedback – what is going well/how could we improve?



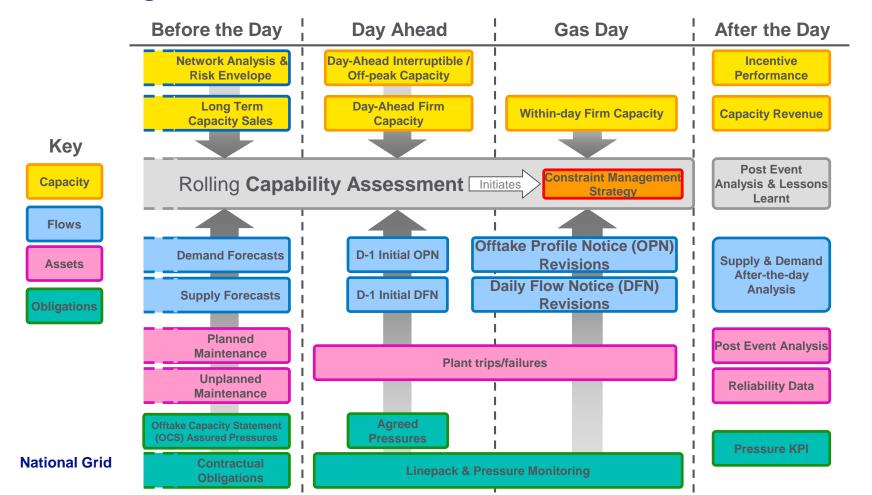
What Constitutes a Constraint?

Entry Example:



In constraint situations, National Grid will communicate with Users via the Active Notification System (ANS). It is therefore important to ensure that your contact details are up to date.

Monitoring the Network



Managing the Network

Operational tools (internal)	Operational tools (external)	Commercial tools	Network Integrity				
Reconfigure Network Optimise Compressor Fleet Manage Outages	Agree Pressures (Distribution Network Operator (DNO) Only) Flow Swaps (Distribution Network Operator (DNO) Only) Enforce Contractual Offtake Rules	Scale-back Capacity (Entry Interruptible & Exit Off peak) Restrict Daily Capacity Locational Energy Actions Capacity Surrender Offtake Flow Reductions Initiate Constraint Management Agreements	Operating Margins Terminal Flow Advice (TFA) (Entry) Critical Transportation Constraint Gas Balancing Notification				
Information Provision (MIPI (Market Information Provision Initiative) / Website / Gemini / ANS (Active Notification System))							

Managing the Network – Commercial Tools

Operational tools (internal)	Operational tools (external)	Commercial tools	Network Integrity				
Reconfigure Network Optimise Compressor Fleet Manage Outages	Agree Pressures (Distribution Network Operator (DNO) Only) Flow Swaps (Distribution Network Operator (DNO) Only) Enforce Contractual Offtake Rules	Scale-back Capacity (Entry Interruptible & Exit Off peak) Restrict Daily Capacity Locational Energy Actions Capacity Surrender Offtake Flow Reductions Constraint Management Agreements	Operating Margins Terminal Flow Advice (TFA) (Entry) Critical Transportation Constraint Gas Balancing Notification				
Information Provision (MIPI (Market Information Provision Initiative) / Website / Gemini / ANS (Active Notification System))							

Capacity Scaleback & Restoration

National Grid may scaleback up to 100% of Interruptible NTS Entry Capacity / Off-peak NTS Exit Capacity in areas of the NTS impacted by a potential constraint.

Scaleback parameters

Daily Interruptible System Entry Capacity (DISEC) or Daily Off-peak NTS Exit Capacity (DONEX) auctions are where Users request interruptible/off-peak capacity rights. This is booked at the day-ahead stage.

Overruns - Users are expected to manage their nominations in line with their (reduced) capacity entitlements in order to avoid overrun charges.

Timings and restoration

Entry – Hour Bar + 60 Mins (e.g. scaleback at 12:30, effective from 14:00)

Exit – HB + 4 hours (e.g. scaleback at 12:30, effective from 17:00)

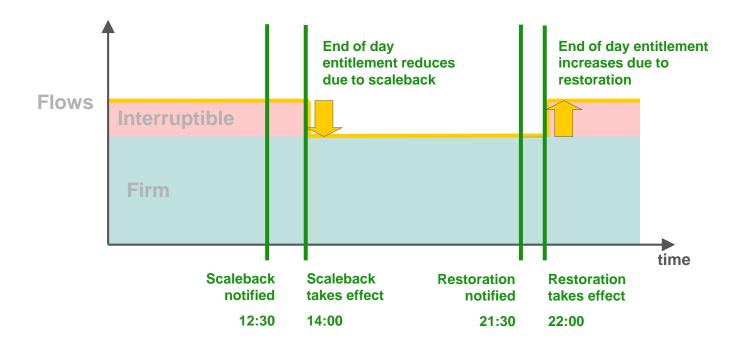
(Scaleback timings could differ at IPs)

Restoration – when constraint has been resolved, scaled Interruptible/Off-peak Capacity may be partially or fully restored.

All restorations are applicable from the start of the next hour bar.

Notices – notifications issued by ANS

Capacity Scaleback & Restoration (Entry)



Restrict Daily Capacity

Restricting release of daily capacity in the Within Day Daily System Entry Capacity (WDDSEC) and Within Day Daily NTS Exit Capacity (WDDNEX) auctions.

When?

Where a constraint has been forecast and it is assessed that releasing further firm capacity will exacerbate the constraint.

If there is an existing constraint occurring and a high expectation that the constraint will continue into the following day, National Grid may also restrict the release of dayahead firm capacity in the Day Ahead Daily System Entry Capacity (DADSEC) and Day Ahead Daily NTS Exit Capacity (DADNEX) auctions.

How?

Notified through ANS – before the auction is due to run.

A further ANS notice shall be issued when the constraint has been resolved allowing participation in the auctions.

Nominations - Users may need to adjust their nominations if daily auctions are restricted.

Locational Energy Actions

National Grid may trade gas at specific NTS Entry and Exit locations in the management of NTS constraints.

What?

Locational Energy Actions aim to increase or reduce actual flow rates without affecting capacity entitlements.

Users will be **notified via ANS** of any requests by National Grid for locational bids or offers.

Imbalance scenario - If large or multiple buy or sell actions are undertaken the system may become out of balance. Under this scenario, further locational actions may be required following resolution of a constraint in order to achieve system balance.

Process

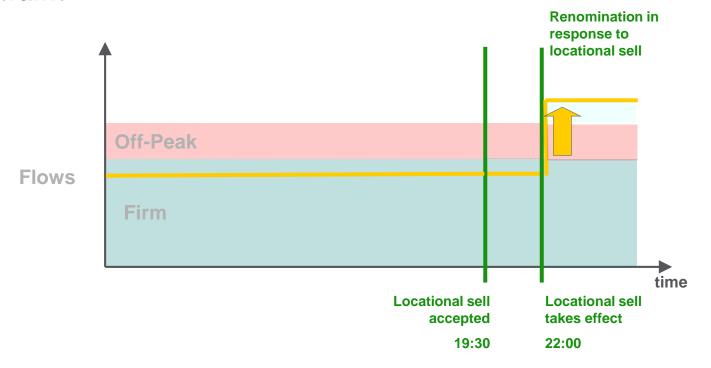
Users post bids or offers to the Locational Energy Market within the WebICE Platform.

National Grid accepts bids or offers based on factors including **cost**, **location and lead-time** in line with the System Management Principles Statement.

User approves trade(s) in Gemini.

Acceptance of a locational bid or offer by National Grid will not automatically adjust capacity entitlements. Users may have to adjust their entitlements in line with their physical gas flow in order to avoid an overrun charge.

Locational Energy Actions – Locational Sell to Manage an Entry Constraint



Capacity Surrender (Capacity Buyback)

National Grid may request to buy back Firm capacity rights in relation to a constraint, only after any Interruptible/Offpeak capacity has been scaled back.

What?

Capacity can be surrendered through daily Surrender Auctions - 'DBSEC' (Daily Buyback System Entry Capacity) and 'DBNEX' (Daily Buyback NTS Exit Capacity).

Capacity surrender at IPs will be processed in the same way. If a User has both bundled and unbundled capacity for surrender, unbundled will be selected first.

Requests to make Firm NTS Capacity Surrender Offers sent via ANS.

Process

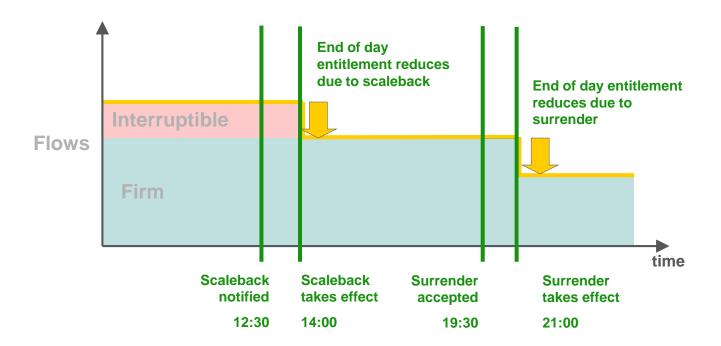
User's Firm capacity entitlements will be adjusted in line with the accepted offer, post auction.

Posting offers – Users must post offers in the DBSEC / DBNEX auctions.

Acceptance – National Grid will review the surrender offers and make relevant allocations.

Nominations - Users are expected to manage nominations in line with their (reduced) capacity entitlements in order to avoid overrun charges.

Capacity Surrender (Entry Buyback)



Offtake Flow Reductions (OFR)

National Grid may require offtake Users to reduce demand for a set period of time by requesting offers for Offtake Flow Reduction at NTS Exit Points.

What?

If required, and in relation to a forecast NTS Exit Constraint, National Grid may initiate an **Offtake Flow Reduction invitation** via ANS notice.

The notice shall inform all NTS Users of the applicable NTS Exit Zone(s) where offers are requested and also the "Invitation Reference Number."

Offer process

NTS Exit Users that wish to make an offer of flow reduction in relation to the invitation sent via ANS can do so by entering the offer details into Gemini Exit.

Offers need to include details of the location, price and potential flow reduction being offered by the User

Where National Grid accepts an offer, the relevant User must ensure that a revised Offtake Profile Notice (OPN) which reflects the accepted OFR offer is received no later than 30 minutes prior to the reduction period.

Constraint Management Agreements

National Grid may develop Contractual Agreements with one or more Parties to manage potential, enduring constraints.

What?

Where there is a prolonged period of perceived constraint risk on the gas network, and National Grid has sufficient notice, it may be considered efficient to tender for a Constraint Management Agreement.

An example of this could be a "turn-down agreement" where the User reduces flows on request, subject to pre-agreed contractual terms.

Process

Ad-hoc tender process, unless there is insufficient notice to do so.

Location and duration of any agreements would be dependent on the location, extent and duration of the perceived constraint risk.

Process is managed by our Contract Services Team, in collaboration with the Capacity Team.

Managing the Network – Summary

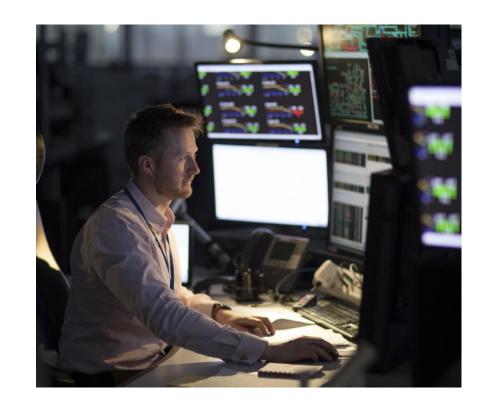
Operational tools (internal)	Operational tools (external)	Commercial tools	Network Integrity			
Reconfigure Network Optimise Compressor Fleet Manage Outages	Agree Pressures (Distribution Network Operator (DNO) Only) Flow Swaps (Distribution Network Operator (DNO) Only) Enforce Contractual Offtake Rules	Scale-back Capacity (Entry Interruptible & Exit Off peak) Restrict Daily Capacity Locational Energy Actions Capacity Surrender Offtake Flow Reductions Constraint Management Agreements	Operating Margins Terminal Flow Advice (TFA) (Entry) Critical Transportation Constraint Gas Balancing Notification			
Information Provision (MIPI (Market Information Provision Initiative) / Website / Gemini / ANS (Active Notification System))						

Coming soon... QSEC and MSEC support

Quarterly System Entry Capacity (QSEC) Monthly System Entry Capacity (MSEC)

The Capacity Team shall be having a query surgery, to provide support for both the annual QSEC and MSEC auctions, during January and February Ops Forums.

Feedback – would an overview/webinar be useful to you for the upcoming QSEC and MSEC auctions?



Contact us

We value your feedback, please provide any suggestions or if you have any questions, contact the team:

Capacityauctions@nationalgrid.com

01926 65 4057

Find out more about capacity: http://www2.nationalgrid.com/uk/industry-information/gas-transmission-system-operations/capacity/

Have we already answered your question? Check out our FAQs page for more information:

https://www.nationalgridgas.com/document/128696/download

Gas System Operator

07

RIIO T2 Follow Up

Josh Bates



national**grid**

RIIO-2 Incentive Summary



RIIO-2 financial incentive summary 1

Incentive		Cap (£m)	Collar (£m)	Target	Comments	
	RIIO-1	26.3	78.8	-£28.9m	Option A: cost target equal to modelled	
	RIIO-2 option A	40	40	-£45.6m (average)	risk output (average) with symmetrical caps and collars	
Capacity constraint management	Capacity constraint)-2 20	20		Option B: Remove a level of risk as 'BAU' from cost target with lower symmetrical caps and collars	
option B				-£22.1m (average)	Option A and B: Remove revenue from scheme where we scale back interruptible/off-peak capacity	
Demand	RIIO-1	20	2.5	~8.5mcm/d (D-1)	Tougher to achieve against by reducing	
forecasting	RIIO-2	8	2.5	13.4mcm/d(D2 to 5)	the performance gradient, reducing the cap (both financial and volume)	
	RIIO-1	2	3.5	LPM: 2.8 mcm/d	Tougher to achieve against by reducing	
Residual	KIIO-I	2	5.5	PPM: 1.5% of SAP	performance gradient. Amend the linepack component of the scheme to	
balancing	RIIO-2	RIIO-2 1.6 2	2.8	LPM: 5.6 & 2.8 mcm/d	drive the right behaviour during seasonal	
KIIO-Z	KIIO-Z			PPM: as per RIIO-1	transitions	

Note: Assumes RIIO-1 sharing factors

RIIO-2 financial incentive summary 2

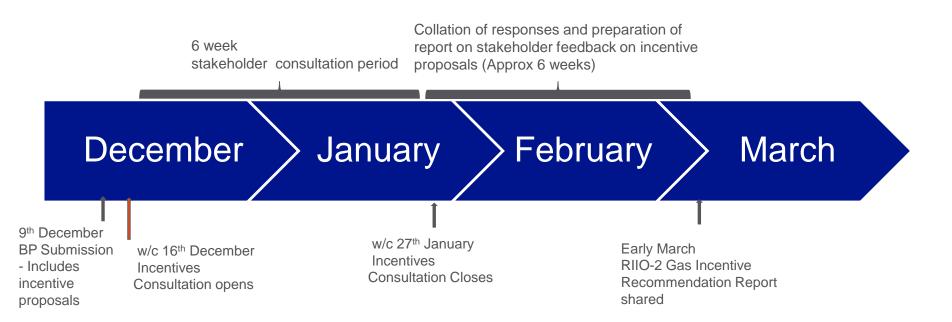
Incentive		Cap (£m)	Collar (£m)	Target	Comments	
Maintenance	RIIO-1	0.7	1	Use of days: 11 Changes: 7.25%	Expand to cover the wider range of	
days			1.5	As per RIIO-1 plus 75% for alignment of non-RVO works	maintenance activities	
NTS	RIIO-1	7	7	Methodology	Include access to seasonal markets to	
shrinkage	RIIO-2	5	5	based	drive further consumer savings for RIIO-2	
GHG	RIIO-1	0	Unlimited	2,897 metric	Includes more penal rates with an	
emissions (venting)	RIIO-2	1.5	1.5	tonnes	upside to encourage further performance improvements	
Customer	RIIO-1	8.5/10	5.3/10	6.9/10	Retain amended incentive with a	
satisfaction	RIIO-2	8.5/10	7.1/10	7.8/10	tougher target	
Environmenta I Action plans	RIIO-2	2.5	2.5	EAP commitment	A potential new ODI to incentivise additional performance above and beyond our baseline communities in our Environmental Action Plan	

Note: Assumes RIIO-1 sharing factors

RIIO-2 Reputational incentive summary

Incentive		Comments
Stakoholder experience	RIIO-1	Newly proposed reputational ODI replacing previous
Stakeholder experience	RIIO-2	stakeholder satisfaction incentive.
Quality of community	RIIO-1	Newly proposed reputational ODI measuring our engagement
engagement	RIIO-2	with communities around construction projects

RIIO2 Incentives Stakeholder Consultation



Where can I find out more?



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Further material

- We have run a series of RIIO-2 incentive webinars which can be found under the incentives section of the following webpage:
 - https://www.nationalgridgas.com/about-us/business-planning-riio/have-your-say-our-future-business-plans
- Our most recent webinar (19/11/2019) focused on demand forecasting and maintenance incentive changes in response to stakeholder feedback and Constraint Management scheme design options.
- We'd welcome your feedback in response to this webinar which can be provided via:
 - https://www.surveymonkey.co.uk/r/6MLYTZB
- The survey will remain open until close of play Monday 25th November 2019
- Alternatively please don't hesitate to contact us directly with any questions or feedback you may have:

Mike.j.Wassell@nationalgrid.com / Carol.Carlin@nationalgrid.com

Gas System Operator

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Transmission Workgroup Update



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Charging Review (Mod UNC0678)

UNC Consultation concluded May 2019

- UNC0678 and the ten alternatives are with Ofgem for decision
- Ofgem Impact Assessment Consultation expected by end of this year
- If accepted by Ofgem implementation would be as soon as possible in line with that proposal, depending on the timing of the approval decision.

For awareness not all proposals include arrangements for a Shorthaul equivalent type charge

- Review workgroup, UNC0670R, was raised by National Grid to work alongside the review of charging arrangements
- Will consider any impact of updates to 0678 as they are available such as the Impact Assessment or minded to position on UNC0678

UNC Mods

Title	Status	Governance	Proposer/ Sponsor	Impacted Party*	Name	Targeted Implementation Date	Gas Market Change Delivery Lead
Mod 0662	With Workgroup	UNC - Transmission	NTS	High impact: Shippers and National Grid NTS	Revenue Recovery at Combined ASEPs	TBC	Colin Williams
Mod 0667	Awaiting Ofgem decision	UNC - Transmission	South Hook Gas Company Ltd	High impact: Shippers. Medium Impact: National Grid NTS	Inclusion and Amendment of Entry Incremental Capacity Release NPV test in UNC	No implementation specified	Malcolm Montgomery
Mod 0670R	With Workgroup	UNC - NTSCMF	NTS	High impact: All parties that pay NTS Transportation Charges and / or have a connection to the NTS, and National Grid NTS	Review of the charging methodology to avoid the inefficient bypass of the NTS	твс	Colin Williams
Mod 0678 (A-J) Urgent	Awaiting Ofgem Decision	0678 WG	Various proposers	High impact: All parties that pay NTS Transportation Charges and / or have a connection to the NTS, and National Grid NTS	Amendments to Gas Transmission Charging Regime	October 2020	Colin Williams
Mod 0683S	With Workgroup	UNC - Transmission	Cadent	High Impact: National Grid Transmission and all GDNs.	Updating the Offtake Arrangements Document (OAD) with recommendations resulting from UNC Request Workgroup 0646R – Review of the Offtake Arrangements Document – Phase 1	NA	Stephen Ruane

UNC Mods

Title	Status	Governance	Proposer/ Sponsor	Impacted Party*	Name	Targeted Implementation Date	Gas Market Change Delivery Lead
Mod 0686	Awaiting Ofgem Decision	UNC - Transmission	Vermilion Energy Ireland Limited	High impact: All Users of the GB gas transmission and distribution system and their downstream customers. National Grid in its role as the Transmission Licensee. Users currently opting for the NTS Optional Commodity Rate could expect an increase in the tariff, whilst those not using the NTS Optional Commodity Rate could expect as increase in the tariff.	Removal of the NTS Optional Commodity Rate with adequate notice	TBC	Colin Williams
Mod 0703S	Approved for implementation	Self governance modification	NTS	Low Impact: GB Gas Market Participants, National Grid NTS	Correction to Modification 0698S 'Improvements to Margins Notice Arrangements'	November 2019	Phil Hobbins
Mod 0705R	With workgroup	Review group	NTS	High Impact: GB gas market participants, National Grid NTS, Ofgem	NTS Capacity Access Review	TBC	Jennifer Randall
Mod 0708	With Panel	New modification	Northern Gas Networks	Medium Impact: Shippers, DNOs Low Impact:NTS, consequential impact to IGTs and CDSP	Re-ordering of the UNC in advance of Faster Switching	твс	ТВС
Mod 0709	With Panel	New modification	Wales and West Utilities	Low Impact: All parties to Code, CDSP	Amendment of references to Data Protection Act for GDPR	TBC	ТВС

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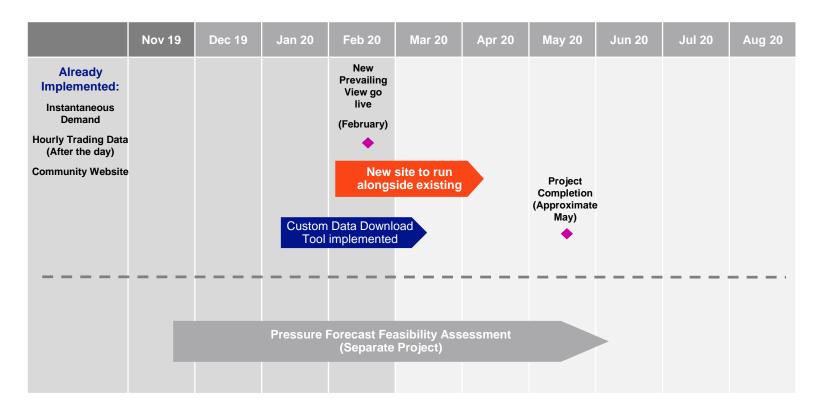
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MIPI Project Update



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Operational Data Project Milestones



Prevailing View

Screens will be completed in the next week- next step is focus on the visualisation of some of the data items

New site will contain all Operational Data in one place:

- Prevailing View
- Report Explorer
- Data Item Explorer
- Defined Download
- Instantaneous Flows
- Entry Zone Graphs



Other Project Deliverables

Upgrade to underlying IT Assets

Improvement to Data Quality and improved ability to monitor Timeliness, Quality, and Availability

Enhanced Data Dictionary

Improved Process to get new data to market quicker:

- Working with Transmission Work Group on process to this
- Will make the governance process more efficient so we can react quicker to changing market needs

Updated Project Plan will be provided at January Ops Forum

		System Status Information (NB92)			
			Latest		
Data Item Name	Applicable For	Applicable At	Publish	Scheduled Publish	Current
Demand Forecast, NTS, hourly update	20/11/2019	20/11/2019 10:03:48	20/11/2019 10:03:49	20/11/2019 10:00:00	~
Opening linepack (interim)	20/11/2019	20/11/2019 10:03:48	20/11/2019 10:03:49	20/11/2019 10:00:00	~
Predicted Closing Linepack (PCLP1)	20/11/2019	20/11/2019 10:03:48	20/11/2019 10:03:49	20/11/2019 10:00:00	V
Predicted Closing Linepack (PCLP2)	20/11/2019	20/11/2019 10:03:48	20/11/2019 10:03:49	20/11/2019 10:00:00	~

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Other Updates



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National Grid IT Changes

Gas Operations Forum

nationalgrid

United Kingdom

Liverpool oManchester

ENGLAND Cambridge
Oxford London

8 Brighton

The Hague Neth

Belgium

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National Grid - System Outage

Last month we told you we needed to make some essential changes in November to our IT systems. Due to operational requirements the dates will be rescheduled. These changes mean we will need to take a series of outages which will have impacts on they way we tell you about PCLP and also the data we display on our operational pages, the impacts being to data on the prevailing view page and within Data item explorer.

The changes we need to make will be done over a series of days.

We also need to take shorter outages of around **3 hours**, these will be carried out during the same hour bar; 16:00hrs, after publication of the hourly information .

During the outages we will make opening linepack, demand & PCLP data available utilising the Active Notification Service (ANS), and we will update Prevailing View with this information too.

If you use electronic notifications to let us know supply and demand information you will be asked to revert to contingency arrangements during these periods, please do not send us electronic files/.emails as these will be not be processed.

Missing data will be retrospectively populated and made available.

The following areas will be impacted:

- Electronic Notifications (Supply and Demand profiles submitted to National Grid)
- PCLP Data Hourly Data
- Forecast Flows Hourly Data
- Physical Flows Hourly Data

Within Data Item Explorer the following will be impacted:

Obligated MIPI reports impacted	Impact During System Outage
NTSAFF-Aggregate Forecast Flows into the NTS	Continues to update with last good value
NTSAPF-Aggregate Physical Flows into the NTS	Total Outage to data - no updates – until System is backed up, next available hour bar will then be published by GNCC
NB92-System Status Information	Total Outage to data - no updates - until System is backed up, next available hour bar will then be published by GNCC
Physical Flows, Bacton IUK Entry	No data updates for duration
Physical Flows, Bacton IUK Exit	No data updates for duration
Physical Flows, Bacton BBL Entry	No data updates for duration
Physical Flows, Moffat Exit	No data updates for duration
GMRS Data	Updates with last good value until a new value is received

Data will be made available during outages through ANS and Prevailing View

Gemini functionality - SSN

To address frequently raised issues by Shippers, National Grid and Xoserve are exploring options to simplify single sided nominations.

Problem Statement

The Gemini system does not allow a user to have both a Single Sided Nomination (SSN) and a Double Sided Nomination (DSN) for the same date/location combination. Where a user has submitted a SSN that is not then matched by the adjacent TSO the user is unable to amend it or submit a new request for that same combination.

Steps taken so far

An information pack has been developed and made available to shippers via Xoserve website <u>EU</u> <u>Nomination guide</u>.

System Options

Please score each of the suggestion below according to the value you perceive (1-4)

A) Ability to Withdraw SSNs / B) Ability to Modify SSNs / C) Auto-population of key fields / D) Other

Contact - For more information please contact cara.finn@nationalgrid.com

Query Surgery and Next Forum

The Next Operational Forum will take place in January

Please send any requested topics to:

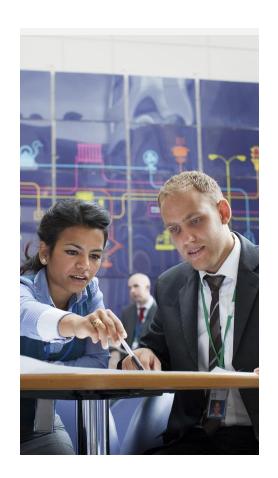
Joshua.Bates@nationalgrid.com

or

.Box.OperationalLiaison@nationalgrid.com

Opportunity now for 121 discussion with NG and Xoserve attendees

Lunch Available



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